MICRO TECHNOLOGY UNLIMITED
KIM - 1 DIGITAL-TO-ANALOG CONVERTER ACCESSORY

The Micro Technology Unlimited DAC board is a complete audio output system for the KIM-1 or other microcomputer. Included along with an 8 bit digital to analog converter is a sharp cutoff low-pass filter and low power high-fidelty amplifier capable of driving any 8 or 16 ohm speaker. With nothing more than the basic KIM-1 and the MTU DAC board, music with true 4-part harmony and organ-quality tones can been generated.

Connection is via PORT A on the KIM-1. Power requirements are +5 volts and +12 volts at such a low current drain that any power supply meeting the worst-case power requirements of the KIM can successfully power the DAC board also.

Included with the DAC board itself is a complete schematic and listing of a 4-part harmony music program that plays the Star Spangled Banner in a voice that approximates the sound of a Hammond organ.

Accessories available include an extended music software package and an inexpensive yet high quality 7 inch speaker (less enclosure). The software package is supplied on a KIM standard cassette and includes additional songs, a music language compiler, and a Fourier series program for creating new voices from harmonic specifications. In addition to musical applications, the package is an excellent instructional aid in mathematics and music classrooms when harmonic analysis is being taught.

SHORT FORM SPECIFICATION

DAC BOARD (2.375"W x 4.75"L)

1. Power +5 @ 2 MA, +12 @ 10 MA quiescent, 150 MA peak with 16 ohm load.
2. DAC Section: 8 bits guarenteed monotonic, straight binary input code, 0 to +5 volts output, 5K source impedance. +5 power input is heavily filtered and used for the reference source.
3. Low Pass Filter Section: 6 poles, 1 dB Chebyshev response, 3.0 kHz cutoff, roughly unity gain.
4. Power Amplifier Section: 20 Hz to 20 kHz response +- 3 dB, load impedance 8 ohms or more, maximum output 200 MW at 8 ohms, 150 MW at 16 ohms.
5. List price $35.00, FOB Manchester New Hampshire

EXTENDED SOFTWARE PACKAGE

1. Will run on a basic KIM-1 with cassette tape
2. Will utilize additional memory if present for longer songs and separate waveforms for each voice.
3. List price $10.00 with DAC board, not available separately.

OPTIONAL SPEAKER

1. 7 Inches diameter, full range cone
2. 5 ounce ceramic ring magnet
3. 16 ohm impedance matches power amp on DAC board
4. List price $5.00, FOB Manchester, New Hampshire

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